

# IN THE UNITED STATES

## PATENT AND TRADEMARK OFFICE

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**Title:** METHOD OF PRINTING, ACTIVATING AND ISSUING AN ACTIVATED TIME  
5 DEPENDENT LABEL

### **ABSTRACT**

A method for continuously producing a plurality of printed and activated time dependent labels. In one embodiment, the method comprises providing a web having a plurality of inked substrates thereon. Each substrate has a migrating ink pattern printed on a surface of the substrate. A transfer  
10 printer is provided that has a first ribbon means for applying a timing layer through which the migrating ink bleeds after a predetermined period of time. A second ribbon means is provided for printing variable data. The web of inked substrates is continuously fed through the printer, each inked substrate passing sequentially under the first ribbon means and then the second ribbon means. The first ribbon means is activated to apply the timing layer to a portion of the printed surface of each inked  
15 substrate thereunder to produce a coated substrate. The second ribbon means is activated to print the variable data information on each coated substrate thereunder, thus continuously producing a plurality of activated time dependent labels having variable data information printed thereon.

In another embodiment for producing a plurality of printed and activated time dependent labels, the web having the plurality of inked substrates thereon is continuously fed through a transfer printer  
20 having a single ribbon means. The single ribbon means includes a first ribbon portion for applying a timing layer through which the migrating ink bleeds after a predetermined period of time, and a second ribbon portion for printing variable data. The web is continuously fed through the printer, wherein the first and second ribbon portions pass sequentially over each inked substrate. The first ribbon portion is activated to apply the timing layer to a portion of the printed surface of the inked substrate thereunder,  
25 to produce a coated substrate, and then the second ribbon portion is activated to print the coated substrate with the variable data information, thus continuously producing a plurality of activated time dependent labels having variable data information printed thereon.